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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,844	10/19/2001	Adam Michael Baumberg	1263.2067	8582
5514	7590	02/22/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			SIANGCHIN, KEVIN	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/981,844	Applicant(s) BAUMBERG, ADAM MICHAEL	
	Examiner Kevin Siangchin	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-57 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Detailed Action

Preliminary Amendments

1. The preliminary amendment, filed the 6th of September 2002, has been made of record. Claims 41-57 have been added.

Election/Restriction

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Invention I: Claims 1-33 and 36-40, directed to generating a frequency component image, or applications thereof, classified in Class **382**, Subclass **191**.

Invention II: Claims 34-35, directed to generating texture render data via confidence images, classified in Class **345**, Subclass **582**.

Invention III: Claims 41-57, directed to processing plural images from plural viewpoints to generate a 3D surface of an object, classified in Class **382**, Subclass **154**.
3. The inventions are distinct, each from the other because *Invention I*, *Invention II*, and *Invention III* are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. See MPEP § 806.05(d).
4. Generally speaking, *Invention I* is a method/apparatus which derives spatial-frequency images from images depicting different viewpoints of a given subject. From the spatial-frequency images, *Invention I* generates data that can be used to model the depicted subject. *Invention I* has separate utility in this regard.
5. *Invention II* is a method/apparatus for creating texture render data from a plurality of generated confidence images, which are indicative of the visibility of a viewed subject. *Invention II* has separate utility in this regard.

Art Unit: 2623

6. Generally, *Invention III* is method/apparatus for generating a 3D surface model of a subject, by processing a plurality of images of the subject. *Invention III* has separate utility in this regard. The model data used to create the model need not be that of *Invention I*, as *Invention III* does not require any information regarding spatial-frequency; nor does *Invention III* require the texture data generated according to either of *Invention I* and *Invention II*.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 C.F.R. § 1.143).

Specification

Objections

9. The Applicant has failed to provide a Background of Invention (or a title indicating this material in the Specification), Summary of Invention (or a title indicating this material in the Specification), and a title for the description of the drawings.

10. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification.

11. As provided in 37 C.F.R. § 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

Art Unit: 2623

- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC
(See 37 C.F.R. § 1.52(e)(5) and MPEP § 608.05. Computer program listings (37 C.F.R. § 1.96(c)),
“Sequence Listings” (37 C.F.R. § 1.821(c)), and tables having more than 50 pages of text are
permitted to be submitted on compact discs.) *or*
REFERENCE TO A “MICROFICHE APPENDIX” (See MPEP § 608.05(a). “Microfiche
Appendices” were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 C.F.R. § 1.97 and
1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 C.F.R. § 1.821-1.825. A “Sequence Listing” is
required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37
C.F.R. § 1.821(a) and if the required “Sequence Listing” is not submitted as an electronic document
on compact disc).

Claims

Objections

12. Claim 1-31 are objected to because of the following informality. The word “spacial” appears throughout these claims. This word should be replaced with the word “spatial”. Appropriate correction is required.
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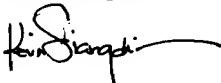
Art Unit: 2623

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Siangchin whose telephone number is (703)305-7569. The examiner can normally be reached on 9:00am - 5:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

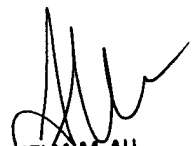
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Siangchin



Examiner
Art Unit 2623

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AMELIA M. AU
SUPERVISORY PATENT EXAMINER
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